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A COLLECTION OF BIRDS FROM THE CAYMAN
ISLANDS.

BY OUTRAM BANGS.

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No. 7.— *A Collection of Birds from the Cayman Islands.*

BY OUTRAM BANGS.

IN the year 1911 the well-known collector, W. W. Brown, Jr., spent the spring and early summer, April to July, in the Caymans. He visited all three islands and made a practically complete collection of the resident, breeding land birds of the group. This beautiful lot of skins, in Brown's inimitable make, fortunately remained intact and was secured for the Museum of Comparative Zoölogy. Below I give an annotated list of the collection which represents only the resident ornith of the islands, being happily free from migrants.

In the Ibis for 1911, (ser. 9, 5, p. 137-161), Mr. P. R. Lowe published a list of the birds of the Cayman Islands. Lowe's account of the islands and his description of them is so good and complete as to leave nothing more to be said. He also brought up to date all bird collecting that had been done there. I must, however, give my opinion upon the sources whence the bird life peculiar to the Caymans has been derived.

Lowe justly states that on account of the very recent origin of the islands no genus and no very peculiar forms occur there alone. In the main, this is true, but I think for the moment he had forgotten *Mimocichla ravid*a. This bird bears no close relationship to any other existing species of the genus. We must, however, bear in mind that Jamaica at present, alone among the Greater Antilles, is without a species of *Mimocichla*. It is highly probable that a form similar to *M. ravid*a once occurred there and that the Cayman bird, now itself on the verge of extinction, was derived from that form.

Coereba sharpei is a species of uncertain origin. The genus *Coereba* has been in the near past, and perhaps is still, so very plastic that the relationships of the various forms are hard to trace.

Dendroica vitellina (which also occurs in Swan Island) and *D. crawfordi*, quite clearly indicate an instance, rather rare among birds, of a migratory species establishing itself upon islands that lie on the line of passage and becoming differentiated there; for clearly the nearest relation of these two wood-warblers is the migratory North American *Dendroica discolor*.

Three other peculiar forms were, I believe, received directly from

the near by mainland. These are the *Elaenia* which is much more like *E. martinica subpagana*, than it is any of the gray Lesser Antillean forms; the *Vireosylva caymanensis* which is very closely related to *V. magister* of the coast of British Honduras and unlike any West Indian form; and the *Vireo*, which so far as I can see is identical with *V. crassirostris* the bird inhabiting the Bahamas (which are of similar formation). This species is so much like *V. ochraceus* of the opposite coasts of Central America and so unlike any of the species peculiar to the Greater Antilles,—Cuba, Jamaica, or Porto Rico, that there seems no question of its origin.

The remainder of the Cayman birds have come from either Jamaica or Cuba, in some case being still identical with the parent stock, in others having differentiated into what may be called island species or subspecies according to the degree of change. From Jamaica the Caymans have received *Leptotila collaris* and *Icterus bairdi*. From Cuba the islands have derived the two forms of *Amazona* peculiar to them, *Colaptes gundlachi*, *Centurus caymanensis*, *Mimocichla coryi*, two forms of *Holotris*, *Spindalis salvini*, and *Melopyrrha taylori*; probably also *Tolmarchus caymanensis*, although this species might be descended from either *T. caudifasciatus* of Cuba or *T. jamaicensis* of Jamaica.

From the above which discusses every bird peculiar to the Caymans it will be seen that I am unable to recognize several forms which have been described as species or subspecies peculiar to the islands, and these I comment upon at length in the following list.

At the time of Brown's visit to Little Cayman and Cayman Brac — June and July — the Boobies and Man-o'-War-Birds were not breeding and all he saw during his stay were occasional birds off shore. Besides these and the list of species following he saw and positively identified only two species, namely *Hydranassa tricolor ruficollis* (Gosse) and *Nyctanassa violacea* (Linné).

Brown took nests and eggs of a number of the species; these are preserved in the Museum of Comparative Zoölogy, and I believe some of them have not before been collected. I have marked with an asterisk each species of which he secured the nest and eggs; and with a dagger the species of which the eggs only were taken.

As this paper was going to press, an article on the birds of Grand Cayman appeared in the *Ibis*, January 1916, p. 17-35, by T. M. Savage English. Mr. English apparently collected no specimens, but based all his identifications on living birds observed afield. During his three years' residence in the island he was able to add twelve species

to Lowe's list. A few of these are merely migrants. Four others I had already included in the following account of Brown's collection, and I let my words stand as first written.

It would be of interest to know the bird that Mr. English found breeding in Grand Cayman and called *Chordeiles virginianus*, distinguishing it from *Chordeiles minor* by its larger size. On geographic grounds it certainly could not have been *Chordeiles virginianus virginianus* (Gmelin).

ARDEIDAE.

* BUTORIDES VIRESCENS BRUNESCENS (Lemb.).

Two specimens, an adult ♂ and an immature ♀, Grand Cayman, May.

These are similar to specimens from Jamaica and Cuba. I have already (Auk, Oct. 1915, **32**, p. 481-484) given my reasons for using the name *brunescens* for the Green Heron of the Greater Antilles. Whether or not that form can be maintained as distinct from *B. v. maculatus* (Bodd.) of Martinique remains, I think, to be proved. Oberholser has probably subdivided the Green Heron too much, and he had but three specimens from Martinique when he wrote his Revision of the subspecies of the Green Heron (Proc. U. S. N. M., 1912, **42**, p. 529-577).

RALLIDAE.

* GALLINULA CHLOROPUS CACHINNANS Bangs.

Brown found the Gallinule breeding in abundance in the many marshy ponds in Grand Cayman in April and May, and took several sets of eggs, but made up no skins.

LARIDAE.

† STERNA ANTILLARUM (Lesson).

One adult ♂, Little Cayman, July 26. Brown found the Least Tern breeding in abundance.

CHARADRIIDAE.

CHARADRIUS WILSONIUS Ord.

Brown noted Wilson's Plover on several occasions on the beaches, where he thought it was breeding. He took no specimens. I include it in this list on Brown's identification in spite of the lack of specimens, in order to correct a rather curious error in Lowe's list where under *Aegialitis semipalmata* Lowe says, "This bird is resident in Jamaica and breeds there. Whether it does so in the Caymans I am unaware. I have included it among the residents." No mention is made of Wilson's Plover, and it seems certain that Lowe in some way confused that species with the Arctic-breeding Semipalmated Plover.

† HYPsIBATES MEXICANUS (Müll.).

The Black-necked Stilt was breeding in numbers in the mangroves in Grand Cayman in May. Brown took several sets of eggs, but did not shoot any birds.

COLUMBIDAE.

COLUMBA LEUCOCEPHALA Linné.

Three specimens, two males and a female, all adult, Grand Cayman and Cayman Brac, May and June.

† ZENAIDA ZENAIDA ZENAIDA (Bp.).

Zenaida spadicea Cory, Auk, 1886, 3, p. 498, Grand Cayman.

Zenaida richardsoni Cory, Auk, 1887, 4, p. 7, Little Cayman.

Thirteen specimens, both sexes, all adult, Grand Cayman, Little Cayman, and Cayman Brac, May, June, and July.

I can find no difference in specimens from the various islands of the Cayman group, and after a most careful comparison, with adequate material, am unable to distinguish in any way Cayman specimens, which appear to me to be quite like examples from the Bahamas, Cuba, and Jamaica, in the same condition of plumage.

Judging from Cory's name and description I fancy he took the Grand Cayman Pea Dove to be darker than true *zenaida*. This may have been because he compared Grand Cayman specimens killed when in worn summer plumage, with skins from elsewhere in autumn or winter dress, there being quite a change with season in

Z. zenaida. This is wholly due, I think, to wear and the loss of the bloom or sheen characteristic of the fresh plumage.

* *CHAEMEPELIA PASSERINA INSULARIS* (Ridg.).

Eleven specimens, all adult males, Grand Cayman, Little Cayman, and Cayman Brac. April, May, and June.

There is no difference in skins from the three islands. On comparing this series with an enormous number of Cuban birds, I could find no differences at all, in color, color of the bill, size, or anything else. I therefore sent the series to W. E. C. Todd, as the latest authority on this group of birds, and asked him for an opinion that I might quote in print. He replied that he was now fully prepared to say that the Cayman and Cuban forms are identical. *Chaemepelia passerina aflavida* (Palmer and Riley) therefore becomes a synonym of *P. p. insularis* (Ridg.). The Jamaican form, though very close still appears to be recognizable.

† *LEPTOTILA JAMAICENSIS COLLARIS* (Cory).

Five specimens, both sexes, all adult, Grand Cayman, May and June.

Brown considers this Dove to be the rarest of all the peculiar Grand Cayman birds. The five specimens he took were the result of days spent hunting especially for it in its favorite haunts.

I can detect no differences whatever in color in comparing these Grand Cayman skins with our twelve specimens of true *L. jamaicensis* (Linné) from Jamaica. The Cayman examples appear to have less white at the tips of the three outer rectrices. This may be partly, perhaps wholly, due to their tail feathers being more worn down at the ends. The Cayman specimens also average slightly smaller than Jamaican ones, as the following measurements show, but the difference is so trifling that a larger amount of material might actually turn it the other way, and I doubt much if the form can be maintained.

GRAND CAYMAN.

No.	Sex	Wing	Tail	Tarsus	Exposed Culmen
68334	♂	148	103	29	16
68335	♂	146	90	31	16
68338	♂	153	105	31.5	15.5
68336	♀	142	95	28	15.5
68337	♀	144	102	27.5	16

JAMAICA.

No.	Sex	Wing	Tail	Tarsus	Exposed Culmen
37732	♂	159	111	31.5	16.5
37733	♂	161	112	31	17
37734	♂	157	109	29	16
54089	♂	154	109	32	16
3695	♂	153	108	30	16.5
3696	♂	158	108	33	17
37735	♀	153	107	29	16
37736	♀	151	105	29.5	16.5
37737	♀	153	100	29	16
41841	♀	159	106	32	16.5
54088	♀	151	99	28.5	16
71554	♀	151	96	28.5	16

PSITTACIDAE.

† AMAZONA LEUCOCEPHALA CAYMANENSIS (Cory).

Ten specimens, both sexes, all adult, Grand Cayman, May and June.

This well-marked form is peculiar to Grand Cayman. I agree with Todd (*Annals Carnegie mus.*, 1911, 7, p. 418) that its relationship to true *leucocephala* of Cuba, which is close, is best expressed by the use of trinomials.

Brown noted that the skin of the orbital region, varied from white to flesh-color. He took a set of four eggs together with the female parent on May 12.

AMAZONA LEUCOCEPHALA HESTERNA, subsp. nov.

Ten specimens, both sexes, all adult, Little Cayman and Cayman Brac, June and July.

Type, adult ♂, M. C. Z. 68313, Cayman Brac, July 15, 1911, W. W. Brown, Jr.

Characters. Similar to true *A. leucocephala* (Linné) of Cuba, but smaller. Paler green, lime-green to mignonette-green (in the Cuban bird about Kronberg's green); under tail coverts and under surface of tail (beyond the red base) paler and more yellowish; red belly patch always large, more sharply contrasted and brighter red without

lavender shimmer — bright hydranger-red — (dark vinaceous, almost always, more or less touched with lavender in true *leucocephala*); outer surface of closed wing paler and duller blue, more greenish,—much more as in *A. l. caymanensis*; shorter upper tail coverts, sometimes also longer upper tail coverts and lower rump feathers, more or less extensively edged and tipped with red (Cuban examples of true *A. leucocephala* seldom show such red markings, and when they do only to a very slight extent). Brown noted the iris as brown and the orbital skin as white to grayish white, the tarsus as yellow.

Measurements.

CAYMAN BRAC.

No.	Sex	Wing	Tail	Tarsus	Culmen from Cere
68312	♂	132	110	21	27
68313	♂	134	109	23	27
68315	♂	133	113	21	27
68316	♂	129	103	22	25
68309	♀	132	109	22	26
68310	♀	128	111	23	25
68311	♀	126	102	21	24
68314	♀	129	107	21	23
68317	♀	134	106	21	25

LITTLE CAYMAN.

68308	♀	131	111	22	25
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Remarks. Brown found this Parrot to be not uncommon though of rather local distribution in Cayman Brac. He also took one specimen in Little Cayman on July 25.

CUCULIDAE.

CROTOPHAGA ANI Linné.

Three specimens, both sexes, all adult, Grand Cayman and Little Cayman, May and July.

* COCCYZUS MINOR NESIOTES (Cab. and Heine).

Eleven specimens, both sexes, all] adult, Grand Cayman, Little Cayman, and Cayman Brac, May, June, and July.

These specimens agree with Jamaican skins in size and proportions and are a little larger than the Bahaman form *C. m. maynardi* Ridg. In the color of the under parts this series shows a wide range of individual variation. The darkest ones are exactly like the paler specimens from Jamaica and the palest ones like the darker examples of *maynardi*. Thus as a whole the series averages a little paler below than the average of a long series of *nesiotes* from Jamaica. All, however, were taken later in the season, than any skin we have from Jamaica and are without doubt somewhat faded out.

HYBRIDIDAE.

HYBRIS PERLATA FURCATA (Temm.).

One adult ♀, Cayman Brac, June 27. This is a very pale and gray individual, rather different from ordinary specimens from Jamaica or Cuba. In a long series from Jamaica, however, we have one skin that agrees with it exactly.

CAPRIMULGIDAE.

CHORDEILES VIRGINIANUS MINOR (Cab.).

One adult ♂, Little Cayman, July 17.

Brown made no note on the abundance of the Little Nighthawk in the Caymans, which I believe has not before been recorded from the islands. It is possible that this individual may have been a migrant from Cuba, where the bird breeds abundantly, but apparently does not winter.

PICIDAE.

† COLAPTES CHRYSOCAULOSUS GUNDLACHI Cory.

Thirteen specimens, both sexes, all adult, Grand Cayman, April, May, and June.

This series shows in a marked degree the two characters pointed out by Ridgway in his *Birds of North and Middle America* — smaller size and smaller and narrower black malar patch in the males — which distinguish it from the Cuban form. It is confined to Grand Cayman.

† CENTURUS CAYMANENSIS Cory.

Nine specimens, both sexes, all adult, Grand Cayman, April, May, and June.

This strongly characterized island species, is one of the commoner birds of Grand Cayman to which island it is confined.

TYRANNIDAE.

TYRANNUS DOMINICENSIS DOMINICENSIS (Gmel.).

Four specimens, both sexes, all adult, Grand Cayman and Cayman Brac, April and June.

TOLMARCHUS CAYMANENSIS (Nicoll).

Twenty specimens, both sexes, young and adult, Grand Cayman, Little Cayman, and Cayman Brac, April, May, June, and July.

This is a well-marked form peculiar to the Caymans, where, I believe, it does not differ either in color or size in the three islands of the group. In fresh spring plumage (April specimens from Grand Cayman) the back is distinctly olivaceous, as compared with the gray back in the Cuban form, *T. caudifasciatus* (D'Orbigny), in similar plumage. In birds killed by May 25 and from then on through the summer, the color of the back, by fading and wear, has changed to a dirty grayish, quite the same as in Cuban skins in the same condition of feather. In this plumage the Cayman bird can only be recognized by its much duller, browner head, less contrasted with the gray of the back — the head of the Cuban bird in worn plumage being very black and sharply contrasted against the color of the back. The Cayman bird also has a longer and more slender bill, this character being well marked as an average one, but unfortunately failing in the case of certain individuals. All the adults from Little Cayman and Cayman Brac, except one, are in the worn and faded midsummer plumage just referred to; the one exception is M. C. Z. 68248 Cayman Brac, June 29, which, though taken on a date earlier than some others that had not changed, has almost completed the postnuptial moult and has again an olivaceous back. The color of the back in this skin is quite the same as in the April specimens from Grand Cayman, while the more faded Grand Cayman individuals killed May 25 are like the

ones from Little Cayman and Cayman Brac taken in June and July. Brown took fully fledged young from July 10 to July 28. The wing in the adults in this series ranges, in Grand Cayman skins, from 103-107; in skins from Cayman Brac, 97-103; in the only adult from Little Cayman (a ♂) it is 108. The Cayman Brac specimens have the tips of the primaries a little more worn down than the Grand Cayman ones.

MYIARCHUS SAGRAE SAGRAE (Gundlach).

Myiarchus denigratus Cory, Auk, Oct. 1886, 3, p. 500, 502, Grand Cayman.

Ten specimens, both sexes, all adult, Grand Cayman, April and May. Apparently this bird is found in Grand Cayman only of the Caymans. The specimens in the present series are indistinguishable in any way from Cuban skins.

* ELAENIA MARTINICA CAYMANENSIS Berlepsch.

Elaenia martinica complexa Berlepsch, Proc. 4th International ornith. congress, 1905, p. 395, Cayman Brac.

Twenty-six specimens, both sexes, all adult, Grand Cayman, Little Cayman, and Cayman Brac, April, May, June, and July.

Specimens in exactly similar plumage from the three islands of the Cayman group are absolutely alike, and no subdivision can be made. I am sure Berlepsch was deceived by the artificial discoloration of Maynard's Cayman Brac skins, upon examples of which he based his *E. m. complexa*. Two such skins are now before me and I do not wonder at such a mistake being made.

The Cayman *Elaenia* fades and bleaches out late in summer, losing all its colors. Two skins collected in Grand Cayman in August, 1886, by W. B. Richardson, have lost all traces of the colors and markings of the form when in fresh plumage. The April specimens in the present series from Grand Cayman are in beautiful fresh unfaded plumage. Some of the late July skins from Cayman Brac have nearly completed the postnuptial moult and are indistinguishable from these. Others taken at the same time had not commenced to moult, and are nearly as faded out as the August examples just referred to.

The Cayman bird appears an excellent form, but I cannot agree with

some other ornithologists that its nearest relation is *E. m. riisii* Scl. of St. Thomas. Nor do I think it very closely related to any of the distinctly gray Lesser Antillean forms. It seems obviously much more like *E. m. subpagana* Scl. and Salv. of the near by mainland, with which it exactly agrees in size and markings and in color except in being *paler* throughout. In good plumage the belly is uniformly yellow, the chest dull yellowish gray, the throat grayish white, and the upper parts olive. All these colors, however, are much paler than in the continental bird.

I think that this bird was derived not through any of the Lesser Antillean forms, which on zoögeographical grounds would seem out of reason, but like *Vireosylva caymanensis* and probably *Vireo crassirostris* direct from the form occupying the adjacent mainland.

MIMIDAE.

* MIMUS POLYGLOTTOS ORPHEUS (Linné).

One adult ♂, Grand Cayman, May 14.

The Jamaican Mockingbird is abundant in Grand Cayman, but apparently is wanting in the two smaller islands.

TURDIDAE.

MIMOCICHLA RAVIDA Cory.

Thirteen specimens, both sexes, all adult. Grand Cayman, April, May, and June.

The Grand Cayman Thrush belongs in a group of the genus *Mimocichla* by itself, and of all the birds peculiar to the Caymans is the only one that is very distinct, having no representative elsewhere. In view of the recent origin of the ornithology of the Caymans, it is probable that there was somewhere, possibly in Jamaica, where no member of the genus now occurs, a related form which has disappeared.

The Thrush is now extremely rare and local in Grand Cayman. Brown covered the whole island and found it only in two remote patches of woodland. Each of these tracts of rather heavier forest than is usual in the island now-a-days was inhabited by a few pairs of thrushes, which Brown believes to be the entire population of the island. In each of these woods Brown was careful to leave birds enough to perpetuate the species, if it is not gradually becoming extinct from some natural cause, as seems to be the case.

Brown noted the colors of the soft parts to be as follows: — "Iris, brown; tarsus, bill, and bare skin of orbital region, coral red."

MIMOCICHLA RUBRIPES CORYI Sharpe.

Twenty-three specimens, both sexes, all adult, Cayman Brac, June and July.

Unlike its cousin of the larger island, the Cayman Brac Thrush is an extremely abundant bird. It is a very well-marked form, with a large light-colored bill.

VIREONIDAE.

VIREOSYLVA MAGISTER CAYMANENSIS (Cory).

Twelve specimens, both sexes, all adult, Grand Cayman, April and May.

Brown found this Vireo in the mangroves in Grand Cayman, where it was not uncommon. It has been recorded from both Little Cayman and Cayman Brac by Cory, but Brown did not find it in either of the smaller islands, where its place seemed to be wholly taken by *V. calidris barbatula*.

The Grand Cayman Vireo is very closely related to true *V. magister* Lawr. of the coast of British Honduras, from which it differs only by its paler coloration.

VIREOSYLVA CALIDRIS BARBATULA (Cab.).

Fifteen specimens, both sexes, all adult, Little Cayman and Cayman Brac, June and July.

The Black-whiskered Vireo was very common in the two smaller islands of the group. The skins show no differences when compared with Cuban examples.

VIREO CRASSIROSTRIS CRASSIROSTRIS (Bryant).

Vireo alleni Cory, Auk, Oct. 1886, 3, p. 500-501, Grand Cayman.

Seventeen specimens, both sexes, all adult, Grand Cayman, Little Cayman, and Cayman Brac, April, May, June, and July.

This series critically compared with our sixty-four skins from the Bahamas proves beyond a doubt that the much discussed *V. alleni*

is absolutely identical with the Bahama bird. All the Cayman examples are in the yellow phase of plumage. They correspond exactly with yellow specimens from the Bahamas from Inagua to New Providence, the type locality of *V. crassirostris*. The three characters that Ridgway in his Birds of North and Middle America thought might distinguish *V. alleni*, all prove illusive. The browner back in the specimens he examined was due entirely to discoloration from the now famous chemical preservative used by Maynard; the outermost primary is not smaller; and the pale wing-bands are not broader.

Todd (Annals Carnegie mus., 1911, 7, p. 428-430) has discussed at length the color-phases of *V. crassirostris*, and I wholly agree with him that the gray and the yellow (the so-called *Vireo crassirostris flavescens* Ridg.) specimens, represent nothing but extremes of color-variation in one and the same subspecies.

Examples from the different islands of the Caymans are all quite alike.

MNIOTILTIDAE.

DENDROICA PETECHIA PETECHIA (Linné).

Dendroica auricapilla Ridg., Proc. U. S. N. M., Aug. 1888, 10, p. 572, Grand Cayman.

Thirteen specimens, both sexes, adults and two young, Grand Cayman, Little Cayman, and Cayman Brac, April, May, and July.

This series together with four skins from the Caymans already in the M. C. Z. I have compared most carefully with a fine set of Jamaican specimens, with the result that I find no way in which to separate them. Ridgway in his Birds of North and Middle America recognizes *auricapilla* as differing from *petechia* on the grounds of "decidedly shorter wing and larger bill and feet." His own measurements, however, which followed, show very trifling differences. My measurements of eight adult males from the Caymans, the wing is:—62-65, (63.81); exposed culmen, 10-11.5 (10.62). In eight adult males from Jamaica, the wing is:—62-67 (64.5); exposed culmen, 10-11 (10.68). I can see no differences at all in the feet.

There are no differences in specimens from the three islands of the Caymans.

Dendroica petechia petechia can be separated from *D. p. gundlachi* Baird of Cuba by slightly paler colors and more extensively ochraceous crown.

DENDROICA VITELLINA VITELLINA Cory.

Ten specimens, both sexes, all adult, Grand Cayman, April and May.

This fine island form confined to Grand Cayman, was in Brown's experience a very uncommon bird and he told me that it was with difficulty that he got even the ten noted above.

DENDROICA VITELLINA CRAWFORDI Nicoll.

Thirty-seven specimens, both sexes, adults and young, Little Cayman and Cayman Brac, June and July.

This is a well-marked subspecies whose characters were accurately noted by Nicoll, (Bull. B. O. C., 1904, **14**, p. 95) who also figured it (Ibis, 1904, ser. 8, **4**, pl. 11, f. 1).

It is an abundant bird in the two smaller islands, and is quite the same in both.

COEREVIDAE.

* *COEREBA SHARPEI* (Cory).

Twenty-eight specimens, both sexes, all adult, Grand Cayman, Little Cayman, and Cayman Brac, April, May, June, and July.

Brown's specimens from Grand Cayman are unfortunately not comparable with his series from Little Cayman and Cayman Brac, and I am unable to say whether the differences shown by birds from the two smaller islands, when compared with examples from Grand Cayman, are seasonal or not. I am inclined, however, to regard these differences as only seasonal. The Grand Cayman birds, all taken in April and May, were in worn and somewhat faded breeding plumage, while those from Little Cayman and Cayman Brac, taken in late June and July, had completed or were just completing the post-nuptial moult, and were therefore all in what might be called fresh autumnal plumage. The upper parts in the Grand Cayman specimens are dull brownish black; the yellow of the under parts is pale and dull. The upper parts in the Little Cayman and Cayman Brac skins are grayish black with a slight olivaceous cast; the yellow of the under parts is richer and rather more orange. Brown noted that the "skin at corners of mouth, red" in the Grand Cayman bird; "skin at corners of mouth, flesh-color" in Little Cayman and Cayman Brac specimens. This possibly also has to do with the breeding season.

ICTERIDAE.

* HOLOQUISCALUS CAYMANENSIS CAYMANENSIS (Cory).

Four specimens, three males and a female, all adult, Grand Cayman, May.

Brown had to spend so much time while in Grand Cayman searching for the rare species, that he rather neglected the Grackle and some of the other very common birds.

This is a very well-marked insular subspecies peculiar to Grand Cayman.

HOLOQUISCALUS CAYMANENSIS CARIBAEUS Todd.

Fourteen specimens, both sexes, adults and one young, Little Cayman and Cayman Brac, June and July.

The Grackle of the two smaller islands which differs from true *H. caymanensis* of Grand Cayman in its much larger size and stronger bill, has always been referred to *H. gundlachii* (Cassin) of eastern Cuba. I had in the present paper corrected this old error, and had named the form as new, arriving at the same conclusions as Todd, except that he did not know the bird of Cayman Brac and Little Cayman, which is identical with that inhabiting the Isle of Pines and western Cuba.

Todd's paper, The Birds of the Isle of Pines, Annals of the Carnegie museum, 10, nos. 1-2, (dated Jan. 1916, but received by M. C. Z. Mar. 1, 1916), containing a description of the form, came just in time to allow me to change the name while reading proof.

ICTERUS BAIRDI Cory.

Seventeen specimens, both sexes, adults, and five immature (one year old?) birds still carrying a partly or wholly greenish yellow tail, Grand Cayman, April, May, and June. A nest made of palm fibres and attached to a hemp palm leaf about sixty feet from the ground was found 28 May; the nest contained three young birds.

This splendid island species confined to Grand Cayman differs from *I. leucopteryx* (Wagler) of Jamaica, from which it obviously was derived, in being bright golden yellow only slightly tinged with olive on the head, and just a trifle darker on the back than it is below. It is also a little smaller and has a slightly slenderer and more delicate bill.

Baird's Oriole has always been extremely rare in collections, in fact besides our series there exist only Cory's original specimens and two in the Tring Museum that were collected by Taylor when he visited the island in 1896 for the Hon. Walter Rothschild.

The species seems to be on the verge of extinction. Why this is I can offer no suggestion. Certainly *I. leucopteryx* is common enough in Jamaica and adapts itself to all the changes man makes there.

Brown found this Oriole scattered here and there at wide intervals in the island and told me he thought it was one of the rarest birds he had ever hunted for.

TANAGRIDAE.

* SPINDALIS SALVINI Cory.

Fifty-five specimens, both sexes (only five females) all adult, Grand Cayman, April and May.

This is a fine, large species peculiar to Grand Cayman. Its nearest relative is clearly *S. pretrei* (Lesson) of Cuba. Its bill though of course larger than in the Cuban species, the bird itself being much larger, is very like it, and quite different from the heavy coarse bill of *S. benedicti* Ridg. of Cozumel Island.

The female, I believe, was previously unknown; in color it is somewhat like the female of *S. pretrei*, (it is of course much larger), the upper parts are, however, paler and more grayish olive, the under parts are more uniform, the belly and under tail coverts not whitish but dull, pale yellowish olive, and the chest is slightly paler olive.

This is another of the Cayman birds that has been very rare in collections; Brown, however, tells me that it is really not uncommon in Grand Cayman, but that it keeps itself hidden away in the dense scrubby woods where it is difficult to shoot, females being especially hard to find.

FRINGILLIDAE.

* TIARIS OLIVACEA OLIVACEA (Linné).

Euthesia coryi Ridg., Auk, Oct. 1898, 15, p. 322, Cayman Brac.

Nineteen specimens, both sexes, all adult, Grand Cayman and Cayman Brac, April, May, and July.

The species has been recorded from Little Cayman, but Brown during his short stay in that island did not find it.

Some years ago Ridgway separated the Cayman Brac form based on specimens collected there by Maynard. Some of Maynard's skins of this bird are in the M. C. Z. so discolored by his chemical preservative as to be practically unidentifiable, and I am afraid even Ridgway was deceived by them. Specimens in the present collection from Cayman Brac are absolutely identical in color as well as in size with those from Grand Cayman. In adult males from Grand Cayman the wing runs 49-51.5; in adult males from Cayman Brac the wing runs 48-51, the tips of the primaries are slightly more worn down in the Cayman Brac skins. Birds from the Caymans are as a whole like Jamaican specimens, and are slightly different from the average of Cuban examples.

We have now in the M. C. Z. upwards of 150 skins of *T. olivacea* from the Greater Antilles, and after a very critical study of these specimens, I think the species might by very close splitting be subdivided. Individual variation, however, is so great and the characters that separate birds from the various islands so subtle that the wisdom of so doing is very questionable. If subdivided, the forms of the Greater Antilles would stand, probably, as follows:—

Tiaris olivacea olivacea (Linné).

Haiti and Santo Domingo.

Slightly browner olive-green above and on flanks; yellow of throat often very pale (the color of the throat-patch is, however, subject to much individual variation in all the forms).

Tiaris olivacea lepida (Linné).

Cuba and Isle of Pines.

Inclined to be darker and duller, than are the other forms, the upper parts often dull dusky olive-green; the flanks darker and encroaching more on belly; belly seldom yellowish.

Tiaris olivacea adoxa (Gosse).

Jamaica and the Caymans.

Usually paler and more grayish olive-green above and on flanks; belly paler and often washed with pale yellowish.

I have no doubt that the subject of Gosse's plate was a young indi-

vidual of this form. If, however, Gosse's bird is considered unidentifiable, then the name *coryi* Ridgway becomes available for it.

Tiaris olivacea bryanti (Ridg.).

Porto Rico.

Averaging slightly smaller than the other races, and slightly brighter olive-green above; belly more yellowish. Perhaps the best of the Greater Antillean forms.

* *MELOPYRRHA TAYLORI* Hartert.

Fifty-one specimens, both sexes, adults and immature (one year old?) males, Grand Cayman, April, May, and June.

This is one of the very strongly characterized species of Grand Cayman. Brown found it to be far from uncommon, though usually keeping well concealed in the scrubby woods.